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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,306	02/28/2002	Lawrence Lam	PALM-3748.US.P	2073

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EXAMINER

LEFLORE, LAUREL E

ART UNIT PAPER NUMBER

2673

DATE MAILED: 03/25/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/087,306

Applicant(s)

LAM, LAWRENCE

Examiner

Laurel E LeFlore

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: element 95 in figures 4-6. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: On page 16, first line of the second new paragraph, "the outer tube 300" should be "the outer tube 230".

Appropriate correction is required.

Claim Objections

3. Claim 26 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 26 is dependent on itself.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 16 and 24 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 16 recites the limitation "said traverses" in line 2. There is insufficient antecedent basis for this limitation in the claim.
7. Claim 24 recites the limitation "said plurality of hollow mid-segments" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 and 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu 5,584,195 in view of Moller et al. 5,889,512.

In regard to claims 1, 9 and 19, Liu discloses a pen comprising an elastic member and a plurality of mid-segments coupled to the elastic member between first and second end caps. See figures 9 and 15 and column 6, lines 55-57, disclosing, "There are a few free sections 58 for covering a spring 60 which provides elasticity". Note in figure 9 that the mid-segments (sections 58) are between first and second endcaps (32 and 64). See further mid-segments (element 38) in figures 3-8. Note elements 38 in figures 3-8 are also between

first and second endcaps and coupled (connected by a link) to the elastic member (within element 36).

Also note in figure 9 is depicted a first end cap tapered to a point (32) and coupled to the elastic member (as they are connected by a link) and a second end cap (64) also coupled (connected by a link) to the elastic member.

Liu does not disclose that the pen is a stylus for use with a touch screen having a digitizer.

Moller discloses a stylus for use with a touch screen having a digitizer. See column 3, lines 48-53, disclosing, "the present invention is well suited for...for example, a touch tablet for inputting strokes into a computer system". Moller teaches in column 2, lines 21-24, "A pen-based computer system is typically a small, hand-held computer where the primary method for inputting data includes a 'pen' or stylus." Muller further discloses in column 1, lines 54-58, "What is needed is a stylus for a portable computer or similar electrical apparatus which...can be stored compactly and yet is of sufficient size that it is comfortable to use."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Liu's pen by making it a stylus, as in the invention of Moller et al. One would have been motivated to make such a change based on the teaching of Moller that a stylus is a "pen". Thus, one would be motivated to use the design of a pen in making a stylus. Further, Moller teaches that "needed is a stylus for a portable computer or similar electrical apparatus

which...can be stored compactly and yet is of sufficient size that it is comfortable to use", such as the pen of Liu.

3. Further in regard to claim 9, Moller discloses a portable electronic device comprising a processor, memory, and a touch sensitive display screen coupled to a bus, and a stylus. See column 1, lines 41-48, disclosing, "the invention will be described in connection with a portable pen-based computer system, such as a Newton PDA...the present invention is also suitable for other types of pen-based computers...in which input can be entered by contacting a stylus on a surface." A PDA and a computer inherently contain a processor, memory and bus. Further see column 3, lines 63-65, disclosing, a display assembly suitable for use with the stylus of the present invention can be both an input and an output device." Further see column 4, line 13, disclosing an LCD and input membrane. Thus a touch sensitive display screen and stylus are disclosed.
4. Further in regard to claim 19, Liu discloses that the pen is bendable. See the figures.
5. In regard to claims 2, 10 and 20, Liu discloses that the mid-segments are operable to interlock with each other, the first end cap and the second end cap to form a rigid member. See column 7, lines 21-25, disclosing, "The detail structures of the sections 38 are best shown in FIG. 10. Each section has two different ends: a protrusive end 70 and a depressed end 72, which matches another protrusive end of the next section, so that all the sections 38 in a barrel are properly matched." Thus, the mid-segments are operable to interlock with

each other. Note in figure 6 that the mid-segments interlock with the first end cap. Also note in figures 2, 9 and 15 that the mid-segments interlock with the second end cap 64 (of element 36).

6. In regard to claims 3, 11 and 21, Liu discloses in the figures that the pen is operable to become flexible when the first end cap is pulled away from the second end cap to disengage interlocking members of the mid-segments and the first and second end caps. Note in the figures that when the pen is depicted in its bent (flexible) state (such as in figures 3, 4, 6, and 10), the mid-segments are partially separated from each other, become a series of joints. Thus, the end caps are pulled away from each other and the interlocking mid-segments are disengaged. In column 7, lines 35-45, Liu discloses a turning section 56 that is operated to "interchange between stiff and flexible". However, it is understood, that after using such turning section 56 to unlock the pen from its stiff state, it is the separation of the end caps and mid-segments, as depicted in the figures, that causes the pen to become flexible.
7. In regard to claims 4, 12, 22, Liu discloses that the elastic member is a spring. See rejection of claim 1.
8. In regard to claims 5, 13 and 23, Liu in view of Moller discloses an invention similar to that which is disclosed in claims 5, 13 and 23. Liu in view of Moller does not disclose that the elastic member covers the outside of the stylus.

However, Liu discloses in column 4, lines 32-, "Partially reinforced flexible barrel 34 is such a pen barrel that can be bent towards at least one side of the

barrel freely, in order to form a circle or to stretch again into a straight pen. The flexibility, in this embodiment, results from sectionalization of the barrel; concretely, partially reinforced flexible barrel 34 comprises a plurality of rigid tubular sections 38a, and a reinforcing member 40a...The reinforcing member of material is flexible laterally but substantially rigid under longitudinal tension. Therefore the partially reinforced flexible barrel 34 has only one flexible side".

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Liu by having the elastic member cover the outside of the stylus, like the reinforcing member 40a of Liu. One would have been motivated to make such a change in order to make the stylus flexible, as the reinforcing member 40a gives the flexible barrel 34 "one flexible side". Further, there is no disclosed criticality of having the elastic member cover the outside of the stylus rather than be in the middle of the hollow mid-segments, and the elastic member covering the outside of the stylus is functionally equivalent to having the elastic member in the middle of the hollow mid-segments. Thus, having the elastic member be an internal spring or an external cover is a matter of design choice, as is any change in form or shape (In re Dailey, 149 USPQ 47 (CCPA 1976)) or shift in location of parts (In re Japikse, 86 USPQ 70 (CCPA 1950)).

9. In regard to claims 6 and 14, Liu discloses that the pen locks together by twisting the first end cap relative to the second end cap. See figure 9 and column 7, lines 49-51, disclosing, "turn the turning section 56 for another 180 degree...the pen

becomes straight form". As turning section 56 is a component in the link between the first and second end caps, it is understood the first and second end caps are twisted relative to each other with the twisting of turning section 56.

10. In regard to claims 7 and 15, Liu discloses that the plurality of mid-segments are hollow. See element 58 in figures 9 and 10. Element 58 is understood to be hollow because components 60 and 62 are within element 58, as shown in figure 15. Also note in figure 10 that element 38 is depicted and is hollow.
11. In regard to claims 8, 16 and 24, Liu discloses that the elastic member is a spring and the spring comprises hooks on both ends and is extended within the hollow mid-segments. See rejection of claim 1. Further see figure 15, depicting the spring 60 extended within the hollow mid-segments 58. While, Liu does not disclose that the spring comprises hooks on both ends, Liu discloses in figure 15 and column 6, lines 61-67, "Inside of the turning section 56, at least 2-3 snap-on points 66a are made near the base of the inner wall, for the head of spring 60 to click on. Another set of snap on points 66b are made on the base of spring support rod 62 for the tail of the spring to click on. Thus, with spring 60, and the connection means 36 is strung up an elastic piece as a whole." Spring hooks are inherently implied in this configuration, as both of the spring ends attach to snap on points.
12. In regard to claim 18, Moller discloses that the portable electronic device is a PDA. See rejection of claim 9.

13. In regard to claim 25, Liu in view of Moller discloses an invention similar to that which is disclosed in claim 25. See figure 9 and the rejection of claim 1 disclosing that the elastic member is a spring 60. A spring is a tube. Liu in view of Moller does not disclose that the tube is clear. However, the color of the elastic member is a matter of routine design choice and there is no disclosed criticality of the elastic member being clear. Further, transparency is simply a design option and not part of the operability of the device, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to have components with transparent properties for marketing or other non-functional options. In re Seid, 73 USPQ 431 (CCPA 1947), states "Matters relating to ornamentation only, and having no mechanical functions, cannot be relied on where claims are not directed to design but are structural claims".
14. In regard to claim 26, Liu in view of Moller discloses an invention similar to that which is disclosed in claim 26. See the rejection of claim 1 for similarities. Liu in view of Moller does not disclose that the plurality of mid segments are different colors. However, the color of the mid segments is a matter of routine design choice and there is no disclosed criticality of the mid segments being different colors. Further, color is simply a design option and not part of the operability of the device, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to change color for marketing or other non-functional options. In re Seid, 73 USPQ 431 (CCPA 1947), states "Matters

relating to ornamentation only, and having no mechanical functions, cannot be relied on where claims are not directed to design but are structural claims”.

15. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu 5,584,195 in view of Moller 5,889,512 as applied to claims 9 and 10 above, and further in view of Canova, Jr. et al. 6,388,870 B1.

In regard to claim 17, Liu in view of Moller discloses an invention similar to that which is disclosed in claim 17. See rejections of claims 9 and 10 for similarities. Liu in view of Moller does not disclose that the stylus can be stored along more than one side of the portable electronic device.

Canova, Jr. discloses an invention in which a stylus can be stored along more than one side of a portable electronic device. See figure 1G and column 4, lines 31-37, disclosing, “housing 110 includes two accessory slots 112 which can accommodate different accessory devices designed for use with handheld computer 100, such as a stylus 400. Accessory slots 112 are located on the left side and the right side of housing 110 to equally accommodate the preferences of both left-handed and right-handed users.”

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Liu in view of Moller by having a stylus that can be stored along more than one side of the portable electronic device, as in the invention of Canova, Jr. One would have been motivated to make such a change based on the teaching of Canova, Jr. “to equally accommodate the preferences of both left-handed and right-handed users” by

having slots that can accommodate a stylus "located on the left side and the right side" of the portable electronic device.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shatkin 1,807,444 discloses a pen an elastic member and a plurality of mid-segments.

Ambasz 4,729,686 discloses a pen with a spring for flexibility.

Ju 2002/0158854 A1 discloses a stylus with a bendable tip.

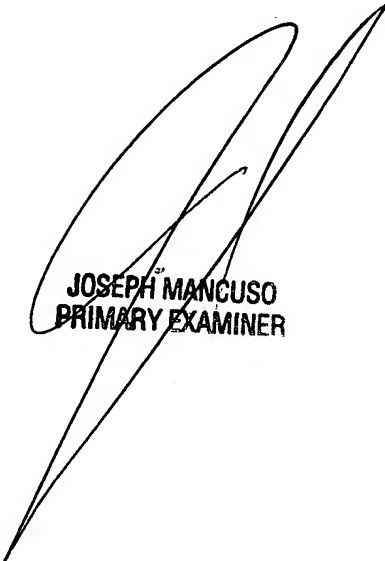
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurel E LeFlore whose telephone number is (703) 305-8627. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (703) 305-3885. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LEL

LEL
18 March 2004



JOSEPH MANCUSO
PRIMARY EXAMINER